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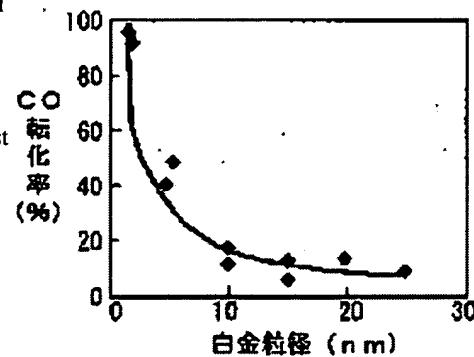
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(54) ORDINARY TEMPERATURE CATALYST

(57)Abstract:

PROBLEM TO BE SOLVED: To produce an ordinary temperature catalyst which is activated at ordinary temperature below 50°C so that it can decompose and remove environmentally pollution load materials such as CO, amines and formaldehyde.

SOLUTION: This ordinary temperature catalyst is obtained by carrying a noble metal on an oxide with introduced oxygen deficiency, and ≥90% of the noble metal is carried in the form of fine particles of ≤2 nm particle diameter. Active oxygen contained in the oxygen deficiency reacts with environmentally pollution load materials adsorbed on the surface of the catalyst at ordinary temperature below 50°C to oxidize and decompose the materials. Though the active oxygen is consumed by the reaction, gaseous oxygen contained in the air is incorporated into the catalyst and becomes active oxygen, which reacts further with environmentally pollution load materials. Since the noble metal is carried as the fine particles, numerous active sites are present and the catalyst has very high activity at ordinary temperature below 50°C.



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